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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/026,110	<b>RECEIVED</b> <b>CENTRAL FAX CENTER</b> NOV 20 2003 <b>OFFICIAL</b>
	Filing Date	December 20, 2001	
	First Named Inventor	Jill Cheng	
	Art Unit	1631	
	Examiner Name	Marjorie A. Moran	
Total Number of Pages in This Submission	7	Attorney Docket Number	3420.1

ENCLOSURES (check all that apply)		
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Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Leticia R. Block, Reg. No.: 50,167
Signature	<i>Leticia R. Block</i>
Date	November 20, 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OFFICIAL

Applicant: Jill Cheng.

Examiner: Marjorie A Moran

Serial No: 10/026,110

Art Unit No.: 1631

Filing Date: December 20, 2001

Docket No.: 3420.1

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NOV 20 2003

Title: **Integrated System for Gene  
Expression Analysis**

Commissioner for Patents  
P.O. Box 1450  
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RESPONSE TO RESTRICTION REQUIREMENT

Sir:

In response to the October 24, 2003 Restriction Requirement, the Examiner is requiring an election between the following species:

- (i) Orthologous gene;
- (ii) Pathological characteristics of genes;
- (iii) Splice variant information;
- (iv) Protein domain information;
- (v) Signal pathway information; or
- (vi) Gene ontology information.

**Applicants elect species of Group (i).** Applicants hereby submit a listing of the claims readable on the present election.

*Listing of Claims:*

1. A method for analyzing gene expression comprising:  
obtaining expression levels of a plurality of genes;  
selecting at least one biological characteristic from a plurality of biological characteristics stored in a database; wherein the biological characteristics comprise genomic information about the genes, structural information about the products of the genes; and biological function of the genes; and  
analyzing the expression levels according to the selected at least one biological characteristic.
2. The method of Claim 1 wherein the analyzing comprises grouping the expression levels according to the selected at least one biological characteristic.
3. The method of Claim 1 wherein the analyzing comprises selecting the expression levels for further analysis according to the selected at least one biological characteristic.
4. The method of Claim 1 wherein the analyzing comprises clustering according to selected at least one biological characteristic.
5. The method of Claim 4 wherein the analyzing comprises multiple dimensional clustering according to selected biological characteristics.
6. The method of Claim 6 wherein the analyzing comprises data mining.

7. The method of Claim 1 wherein the plurality of biological characteristics comprise orthologous genes.
13. The method of Claim 1 wherein the database is a relational database.
14. The method of Claim 1 wherein the database is an object oriented database.
15. The method of Claim 13 wherein the biological characteristics are retrieved using SQL statements.
16. A system for analyzing gene expression comprising a processor; and a memory being coupled with the processor, the memory storing a plurality of machine instructions that cause the processor to perform the method steps of  
obtaining expression levels of a plurality of genes;  
selecting at least one biological characteristic from a plurality of biological characteristics stored in a database; wherein the biological characteristics comprise genomic information about the genes, structural information about the products of the genes; and biological function of the genes; and  
analyzing the expression levels according to the selected at least one biological characteristic.
17. The system of Claim 16 wherein the analyzing comprises grouping the expression levels according to the selected at least one biological characteristic.

18. The system of Claim 16 wherein the analyzing comprises selecting the expression levels for further analysis according to the selected at least one biological characteristic.
19. The system of Claim 16 wherein the analyzing comprises clustering according to selected at least one biological characteristic.
20. The system of Claim 16 wherein the analyzing comprises multiple dimensional clustering according to selected biological characteristics.
21. The system of Claim 16 wherein the analyzing comprises data mining.
22. The system of Claim 16 wherein the plurality of biological characteristics comprise orthologous genes.
28. The system of Claim 16 wherein the database is a relational database.
29. The system of Claim 16 wherein the database is an object oriented database.
30. The system of Claim 28 wherein the biological characteristics are retrieved using SQL statements.
31. A computer readable medium comprising computer-executable instructions for performing the methods comprising:

obtaining expression levels of a plurality of genes;  
selecting at least one biological characteristic from a plurality of biological characteristics stored in a database; wherein the biological characteristics comprise genomic information about the genes, structural information about the products of the genes; and biological function of the genes; and  
analyzing the expression levels according to the selected at least one biological characteristic.

32. The computer readable medium of Claim 31 wherein the analyzing comprises grouping the expression levels according to the selected at least one biological characteristic.
33. The computer readable medium of Claim 31 wherein the analyzing comprises selecting the expression levels for further analysis according to the selected at least one biological characteristic.
34. The computer readable medium of Claim 31 wherein the analyzing comprises clustering according to selected at least one biological characteristic.
35. The computer readable medium of Claim 31 wherein the analyzing comprises multiple dimensional clustering according to selected biological characteristics.
36. The computer readable medium of Claim 31 wherein the analyzing comprises data mining.

37. The computer readable medium of Claim 31 wherein the plurality of biological characteristics comprise orthologous genes.
43. The computer readable medium of Claim 31 wherein the database is a relational database.
44. The computer readable medium of Claim 31 wherein the database is an object oriented database.
45. The computer readable medium of Claim 43 wherein the biological characteristics are retrieved using SQL statements.

Applicants believe that no fee is due with the submission of this document. However, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

Respectfully submitted,

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Date: 11/20/2003

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